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## 1.0 Introduction

Traditionally, libraries have dealt with three levels of information:

1. What there is: information about what information exists (e.g., card catalogues, indexes, and abstracts).
2. Where it is: information about where that information is located (e.g., card catalogues).
3. Content: the information itself (e.g., books and journals).

Users could determine the "what" and "where" in the traditional card catalogue. Introducing the online catalogue expanded access from any networked terminal in the library or elsewhere, but materials still were accessible only in the library.

With the provision of electronic indexes and abstracts, access to information about "what" exists has expanded, especially if this information is available on networks. However, it continues to be a separate task in most cases for the user to determine where desirable material is located.

Further, electronic indexes and abstracts have given users access to information about far more material--material often available only in another (usually unidentified) institution. Access to this material has been provided primarily through a labour-intensive interlibrary loan process. Libraries are increasingly recognizing the potential benefits, both for patrons and library operations, of providing more direct access to the material, wherever it is located.

A first step is to allow patrons to request copies of documents directly from other institutions. The purpose of the Online Journal Access Citation (OJAC) project was to demonstrate the feasibility of this process. The second step of providing electronic access to the document itself is only now becoming a possibility with available electronic information, increasing network bandwidth, and sufficient computer resources.

## 2.0 Background

The British Columbia Electronic Library Network (ELN) was provincially funded in 1989 to provide electronic access to information for all twenty-four publicly funded British Columbia post-secondary institutions, including four newly founded University Colleges. These institutions had been established to deal with the problems of the low post-secondary participation

rate and increasing population in the interior of the province. Programmes at the University Colleges were developed in partnership with the three existing British Columbia universities. It was intended that ELN not build a highly centralized facility, but rather rely on ELN-subsidized projects undertaken by individual institutions to fulfill this mandate.

By 1991, the University of British Columbia and Simon Fraser University libraries had already begun mounting commercial reference and journal article citation databases on their own institutional computer systems. These databases were used by each institution's faculty, students, and staff.

The long term objectives of the OJAC pilot project were to: (1) encourage and to develop a model and mechanism for these libraries to share their locally mounted databases with students, faculty, and staff at other ELN institutions, and (2) provide a mechanism for users to issue an online request for a specific article. Thus, the OJAC project would meet the Ministry of Advanced Education Training and Technology's intention when it established the Electronic Library Network: to facilitate and increase resource sharing among British Columbia post-secondary libraries through the provision of electronic library network services.

Simon Fraser University provided staff, computing facilities, data communications facilities, and funding to implement and manage the pilot project. Much of the required computing and data communications support for the project was already being developed for local use. ELN provided funding to: (1) obtain consortium rights for participating students and faculty to access the pilot database, (2) provide data communications and terminal/workstation support for the colleges, and (3) offer journal retrieval and photocopying services during the pilot.

A report by Paul Baldwin defined the OJAC pilot project. [1]

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### 3.0 Description of the Pilot Project

Simon Fraser University Library managed the OJAC pilot project in partnership with the participating libraries. Project objectives were as follows:

1. To mount a journal contents database on the Simon Fraser University's BRS/SEARCH computing facility that could be accessed by students, faculty, and staff at SFU, especially students at the downtown Belzberg branch of the SFU Library and University College of the Cariboo (UCC), one of the new University College members of the ELN. The initial database was H. W. Wilson's Social Science Index.
2. To link the journal contents database to a serials control file of library journal holdings of the Simon Fraser University and University College of the Cariboo libraries, with the capability to expand the linking to other ELN participant library journal holdings after completion of the pilot phase.
3. To provide a document delivery service based on requests submitted by faculty, students, and staff of the participating libraries as part of their searching

in the journal contents database.

4. To demonstrate the feasibility of this model and service to be used by other ELN participant libraries.
5. To work out the technical, procedural, management, and service issues required to transform the pilot project into an ongoing service of the Electronic Library Network and to quickly extend it to other ELN libraries.

During Phase II of the pilot project, two other post-secondary ELN-member libraries--Okanagan University College (OUC) and University College of the Fraser Valley (UCFV)--joined the project, and their holdings were added. A second database, the Wilson Humanities Index, became available.

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Library users submitted requests by searching and selecting a citation online, then entering their name, student number, and phone number using online prompts. These requests were forwarded via e-mail to an ID maintained for the supplying institution. Requests were retrieved daily, and the journal articles were photocopied and forwarded to the requesting institution's ILL division. Although every library could be a document supplier, it was anticipated that SFU would be the main supplier because of its more comprehensive collection. A student was hired for two hours per weekday to process requests at SFU.

#### 4.0 OJAC Library Reports

Each participating library prepared a report about its use of OJAC. What follows is a summary of the key issues addressed in these reports.

#### 4.1 Publicity, Training, and Documentation

Each institution had already developed its own procedures for publicity, training, and documentation for electronic services. Consequently, the approach used for the OJAC project was individually determined as well.

OJAC publicity was accomplished through library research instruction sessions, class tours, and announcements in campus publications. Instructional faculty were notified about the project through departmental meetings and announcements.

The University College of the Fraser Valley noted that "the best publicity for OJAC, however, was word-of-mouth from students and faculty who used it successfully, and who came back with their friends for another session."

All of the libraries indicated the importance of a basic introduction to the searching menus. Individual point-of-need instruction was the primary means of familiarizing library patrons with the database and searching techniques. Library instruction sessions, printed handouts, and the system's online instructions were also used to orient users to OJAC.

Some system features--combined search terms, abbreviations, truncation, author-name searches, and the selection of appropriate subject headings--presented difficulties for users, particularly for first and second year students.

The OJAC terminals were placed near the reference desk in

each library, so that help from a librarian was readily available.

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#### 4.2 Telecommunications

Slow system response time was a problem during the pilot project, particularly before BCnet TCP/IP connections were installed at Okanagan University College and the Belzberg Library. This problem resulted from the inadequate telecommunications support for post-secondary institutions outside the British Columbia Lower Mainland for both file transfer and virtual terminal sessions. The University College of the Cariboo and the University College of the Fraser Valley were using Datapac for communications (they did not have BCnet connections). After the pilot project, the University College of the Cariboo obtained a 9600 baud BCnet connection.

#### 4.3 Effect on Regular ILL Traffic

A problem that libraries face is that the increasing demand for interlibrary loans has not been matched with a concomitant increase in staff. One reason for introducing a service such as OJAC is the expectation that it will replace some regular interlibrary loan requests, thus eliminating staff time required to process requests.

Because of changes due to expansion of academic programmes at all three University Colleges, it was difficult to isolate the impact of OJAC on regular interlibrary loans.

Okanagan University College noted that, although interlibrary loan statistics increased rapidly between 1989/90 and 1991/92, in 1992/93 they dropped by 11.8%. Combined ILL and OJAC figures for Okanagan University College showed a 7% increase for 1992/93. OUC staff felt that part of this drop may have resulted from rapid collection growth meeting user needs; however, they felt it was also likely that the drop reflected the substitution of OJAC document delivery requests for ILL requests.

The University College of the Cariboo indicated that the OJAC project reduced the number of interlibrary loan requests. This impact was especially noted in academic year 1992/93, when students and reference staff became more familiar with the service and more promotion and orientation was done with classes and faculty.

The University College of the Fraser Valley noted that their ILL statistics for January to March 1993 rose 256% over those from the previous year. ILL requests rose from 78 in March 1992 to 393 in March 1993. Because this was UCFV's first year as a degree-granting institution, it was not possible to isolate the increases due to OJAC.

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#### 4.4 Document Delivery

With the exception of one week where system problems interfered with the daily processing of requests, Simon Fraser University maintained its goal of overnight to three day processing--the longer time being required if an item was not on the shelf at the time of the initial retrieval attempt. This goal was achievable because Simon Fraser University does not circulate journals.

Each library decided what method of delivery should be used, and the opportunity to compare results was valuable.

The University College of the Cariboo felt that their subsidy for Priority Post delivery was well-spent. The Belzberg branch library in downtown Vancouver receives a daily ILL shipment from SFU's main library at the Burnaby Campus, and OJAC was included in it; this contributed to their satisfaction with document delivery.

Okanagan University College used regular mail delivery and noted that student response was very positive for orders filled in less than seven days. They suggested that speedy document delivery should remain a primary feature of the OJAC service.

The University College of the Fraser Valley noted that toward the end of the term some students were waiting ten days or more for their materials. UCFV was relying on regular ILL delivery using the British Columbia post-secondary interlibrary loan NET service. This meant that materials were sent by twice-weekly courier to the University of British Columbia from Simon Fraser University. From there, they went by thrice-weekly courier to University College of the Fraser Valley. At times, this resulted in a delay of four working days.

One concern which librarians had was that the ability to request documents in the absence of quotas or user charges might result in abuse of the system. Okanagan University College noted that, although the majority of users ordered reasonable numbers of documents, 30% of the orders during one period were generated by just four users. The Belzberg Library noted a few minor problems involving requests initiated under fictitious names, documents ordered in error, or articles not picked up, but felt these did not interfere with the operation of the service. To allow some monitoring of user activity and contact with patrons, documents were delivered to the interlibrary loan office of the libraries rather than directly to patrons.

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#### 4.5 Serial Holdings

All libraries noted the usefulness of having their own holdings available in the database as well as those of Simon Fraser University, with its broader collection. The University College of the Fraser Valley commented on the "number of panic-stricken students who needed articles immediately, and who used OJAC to identify articles in journals held at University College of the Fraser Valley." Although every effort was made to provide accurate serials holdings and to update them on request, holdings were not completely accurate.

#### 4.6 User Experience and Satisfaction

All libraries reported a high degree of user satisfaction; this was supported by various user surveys and by anecdotal evidence. At the conclusion of Phase I, the University College of the Cariboo noted that a variety of students and faculty had indicated satisfaction with the OJAC service, and a staff survey in December 1992 rated the OJAC project highly. The University College of the Fraser Valley noted that OJAC was very successful, especially for students in third year who had specific, complicated topics that were not easily searched in paper indexes.

However, the participating libraries did report some

problems. For example, students in interdisciplinary fields stopped before checking both OJAC indexes (Humanities Index and Social Science Index) or they became frustrated at having to check indexes sequentially. It was suggested that these databases be combined for searching purposes. With the availability of the OPAC, BRS/SEARCH, and numerous CD-ROMs, students were initially confused by the variety of user interfaces.

#### 4.7 Continuation of OJAC

It was unanimously agreed by the participating libraries that OJAC should continue after the pilot project. The Belzberg Library noted that the project had provided patrons of that small branch library with access to vast resources in electronic form and delivered the full text of those documents in a timely manner. They asserted that, in order to maintain and enhance electronic access for students, faculty, and staff, it was vital for the OJAC project to continue. Because seven new degree programs were recently added at the University College of the Cariboo, the library believed it could not fully provide all the necessary resources for undergraduate research. Rather, it would have to continue to rely on outside sources to supplement its collections, and OJAC could improve its access to the collections of participating libraries.

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Great interest was expressed in expanding this type of service, both through adding more databases and more libraries. Okanagan University College suggested that electronic indexes in the social sciences and humanities increased the demand for electronic indexes in other fields of study. The University College of the Cariboo noted that the popularity of OJAC with students prompted them to ask for access to both additional databases (especially science databases) and matching primary sources at other institutions (mostly the University of British Columbia and the University of Victoria), all available with the same fast turnaround time of three to four days. Enhanced and expanded database offerings would be welcomed by University College of the Cariboo students and faculty.

#### 5.0 User Surveys

Okanagan University College, the Belzberg Library, and the University College of the Cariboo distributed two surveys during the course of the project. The first was to users searching the catalogue. The second was given out to users who had requested documents at the time the document (or a notice if the document was unavailable) was delivered to them.

In each case, a small number of users responded and the results are not statistically meaningful. Nevertheless, they suggest what things are important to users and what areas could use improvement. During planning, it was recognized that each institution wished to address issues of particular concern to itself. Thus, the questions were phrased slightly differently at each institution. The complete results of the questionnaire are available in the final project report. [2]

#### 5.1 Online Catalogue Searching Survey

An online catalogue searching survey was conducted by Okanagan University College (34 respondents), the Belzberg Library (12 respondents), and the University College of the Cariboo (5 respondents).

Not every respondent answered each question. Three questions (3, 7 A., and 7 B.) were not asked by all three institutions.

Average responses were in the 3.4-3.8 range on a five-point scale, where a high score indicated a positive response. (Okanagan University College's question regarding response time, for which the average was 2.5, was an exception. Okanagan University College reports that since the time of the questionnaire, it has installed faster lines, and the response time has noticeably improved.)

The survey results are presented in Table 1.

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Table 1. Online Catalogue Searching Survey Results  
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1. The first question asked the user to specify what information the user was searching for. The results, although meaningful only in the institutional context, indicated that virtually all of the searches were subject oriented. The subject specified by one dissatisfied user ("themes in the fairy tale Beauty and the Beast" in the Social Sciences Index) indicated that the user had not recognized the inappropriateness of the database for the topic.

2. How many periodical articles/citations did you find?

0	1-10	11-50	51-100	100+	Total
4	17	5	6	8	51

3. How many different searches did you do (OUC and UCC)?

1	2-5	6-10	11-20	21-30	50	Total
4	20	8	3	4	6	39

4. How satisfied were you with the amount of information you found? (1 = not satisfied and 5 = very satisfied)

1	2	3	4	5	Total	Average
5	9	10	17	11	52	3.4

5. How relevant was the information you found? (1 = not relevant and 5 = relevant)

1	2	3	4	5	Total	Average
4	6	12	15	14	51	3.5

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6. How complete was the information you found? (1 = not complete and 5 = complete)

1	2	3	4	5	Total	Average
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4	6	11	20	9	50	3.5
---	---	----	----	---	----	-----

7 A. Overall how satisfied are you with your search results (Belzberg and UCC)? (1 = not satisfied and 5 = satisfied)

1	2	3	4	5	Total	Average
---	---	---	---	---	-------	---------

2	1	2	7	6	18	3.8
---	---	---	---	---	----	-----

7 B. How satisfied were you with the speed of the online searching (OUC)? (1 = not satisfied and 5 = satisfied)

1	2	3	4	5	Total	Average
---	---	---	---	---	-------	---------

11	7	6	7	3	34	2.5
----	---	---	---	---	----	-----

8. How easy did you find the online indexes to search? (1 = not at all and 5 = very)

1	2	3	4	5	Total	Average
---	---	---	---	---	-------	---------

2	5	15	16	13	51	3.6
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9. How useful did you find the [OUC screen] instruction? (1 = not useful and 5 = useful)

1	2	3	4	5	Total	Average
---	---	---	---	---	-------	---------

3	13	9	16	11	52	3.4
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10. How much assistance did you require from library staff? (1 = none and 5 = constant)

1	2	3	4	5	Total	Average
---	---	---	---	---	-------	---------

16	7	11	11	5	50	2.6
----	---	----	----	---	----	-----

11. Overall, how satisfied were you with the search software? (1 = not satisfied and 5 = very satisfied)

1	2	3	4	5	Total	Average
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1	8	10	19	11	49	3.6
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## 5.2 Document Delivery Survey

A document delivery survey was administered by Okanagan University College (12 respondents) and the University College of the Cariboo (19 respondents). Responses to this survey were in the 4.3-4.7 range on a five-point scale, where a high score indicated a positive response. In one case (4 A. and 4 B.), the institutions asked slightly different questions.

Table 2 presents the document delivery survey results.

Table 2. Document Delivery Survey Results

1. Were the articles you received relevant to your topic? (1 = not relevant and 5 = very relevant)

1	2	3	4	5	Total	Average
---	---	---	---	---	-------	---------

2	0	3	4	18	31	4.3
---	---	---	---	----	----	-----

2. Did you receive the articles you requested? (1 = none and 5 = all)

1	2	3	4	5	Total
---	---	---	---	---	-------

0	0	1	4	26	31
---	---	---	---	----	----

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3. Were you satisfied with the delivery time? (1 = not satisfied and 5 = very satisfied)

1	2	3	4	5	Total	Average
---	---	---	---	---	-------	---------

1	1	5	2	22	31	4.4
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4 A. Approximately how long did it take for articles to arrive? (for OUC; measured in days)

1-3	4-5	6-7	8-10	11-14	Total
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0	3	5	3	1	12
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4 B. Was the delivery time satisfactory? (for UCC; 1 = not satisfied and 5 = satisfied)

1	2	3	4	5	Total	Average
---	---	---	---	---	-------	---------

1	0	0	2	16	19	4.7
---	---	---	---	----	----	-----

5. Would you use the online indexes and article delivery service again?

All respondents said yes.

6. Overall how satisfied were you with this document delivery service? (1 = not satisfied and 5 = very satisfied)

1	2	3	4	5	Total	Average
0	0	1	10	20	31	4.6

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### 5.3 Summary of User Comments

In both surveys, users were asked to comment about what they liked or disliked about the system. Selected comments follow. Numbers in parentheses indicate how many users made a similar comment.

What users like about the system:

- o Access to more, useful materials (9).
- o Faster than a print search (8).
- o Accessible, user-friendly, and easy to learn (7).
- o Saves time receiving serials materials (7).
- o Direct online ordering (3).
- o More efficient and simple than ILL (3).
- o Local holdings are useful (2).
- o Downloads very fast (1).
- o Easier than a print search (1).
- o More comprehensive than a print search (1).
- o Ability to print results (1).

What users like least:

- o Too many steps, tricky to use, and need initial help (19).
- o System is too slow (15).
- o System hanging or not working (4).
- o Separate indexes--combine them (1).
- o Delivery too slow (1).
- o Disappointed when requested article that was not delivered (1).
- o Disliked screen by screen print (1).
- o Need more terminals (1).

Other:

- o Want abstracts and more information (4).
- o Need more databases and Canadian content (3).
- o Needs status reports (1).

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### 6.0 Document Request Statistics

Statistics are shown below for the period January to April 1993 when all of the libraries were fully operational. Of the 1,476 requests received at Simon Fraser University, SFU filled 1,181

requests (80%). In total, 1,220 requests were filled. Forty-one requests (3%) were duplicate requests.

Simon Fraser University held 655 (83%) of the 786 journals represented in the two databases, compared to Okanagan University College (217), University College of the Fraser Valley (95), and University College of the Cariboo (169). In addition, SFU's holdings displayed first on the list. Thus, it is not surprising that most requests were sent to SFU.

Table 3 shows total OJAC requests between January and April 1993.

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Table 3. Total OJAC Requests, January 1993 - April 1993  
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Lent to ===	Borrowed From =====					
	SFU	UCFV	UCC	OUC	Belzberg	Total
SFU	----	0	0	0	0	0
UCFV	146	-	4	2	0	152
UCC	299	0	--	23	0	322
OUC	679	0	10	--	0	689
BELZ	56	0	0	0	-	56
Total	1180	0	14	25	0	1219

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Table 4 shows OJAC requests filled by SFU between January and April 1993.

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Table 4. OJAC Requests Filled by SFU, January 1993 - April 1993  
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Library =====	Requests =====	Filled =====	Unfilled =====	Held =====	Duplicate =====
OUC	846	679	167	64	22
UCC	380	299	81	40	6
UCFV	165	146	19	21	1
BELZ	84	56	28	7	12
Total	1475	1180	295	132	41

Requests for journals already available in the requesting libraries were returned (132 or 9%). It appears that this problem occurred because students were confused by the holdings displays, particularly when they continued on to a second screen or when the system was slow and students became impatient with waiting. This problem abated when the holdings display was changed to provide more information on the initial holdings screen. It would be desirable if only the owning institutions' names and codes displayed on the initial holdings screen.

Activity varied widely, peaking toward the end of each semester and slowing during midterm break. Activity during the

summer session was much lower than during the fall and winter sessions. The annual data for the University College of the Cariboo and the Belzberg Library show this pattern.

Table 5 shows OJAC requests to Simon Fraser University from Belzberg Library and the University of the Cariboo Libraries between May 1992 and April 1993.

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Table 5. OJAC Requests to Simon Fraser University from Belzberg Library and the University of the Cariboo Libraries, May 1992 - April 1993  
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	May '92	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan '93	Feb	Mar	Apr
BELZ	6	4	0	0	26	42	0	0	48	30	6	0
UCC	6	0	0	9	49	94	69	21	65	143	171	1

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#### 7.0 OJAC Costs

The OJAC project determined document delivery costs and compared these costs with traditional ILL costs.

#### 7.1 Lending Costs

The SFU Interlibrary Loans Department maintained records on the time required to process OJAC requests and on other costs. The "administrative, equipment, and other" cost is our best estimate. The breakdown of costs for a typical OJAC request is shown in Table 6.

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Table 6. Cost Breakdown for SFU Processing a Typical OJAC Request  
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Activity	Cost (Canadian dollars)
Clerical (printing requests, pulling, photocopying, and shipping; 8 per hour)	\$2.00
Postage	\$1.00
Photocopy	\$ .60
Supervisory	\$1.25
Administrative, equipment, and other	\$1.15
Total	\$6.00

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This compares with Simon Fraser University's usual lending costs of approximately \$11 (Canadian). There are several reasons why OJAC lending would be cheaper:

1. The citations are copied electronically from the database, and they have a high degree of accuracy.
2. Because journals do not circulate at SFU, there is no cost for identifying whether materials are in circulation and recalling them if needed. In some cases, however, journals are not on the shelves and a second trip is required to retrieve the item.

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3. The staffing level required for performing OJAC work is at a lower pay grade than that required for more complex lending.

## 7.2 Borrowing Costs

Normally, ILL borrowing costs tend to be much higher than lending costs. This is because staff need to receive the request on paper, identify a location holding the material, send the request, and possibly repeat the process if that institution is unable to supply it. The patron then needs to be notified and given the material. Books eventually need to be returned to the supplying library. Typically, Simon Fraser University's borrowing costs are about \$26 (Canadian) per item.

This is where OJAC can truly save library staff time and money. The only library staff activity required for an unmediated journal search is to deliver the journal article to the patron, possibly helping the patron with an unsuccessful request. It is of concern that patrons may abuse such a service; many libraries monitor ILL requests and restrict an individual patron's activity either with a limit on the number of requests per term or by intervening if a patron appears to be overusing the ILL service.

This issue has been discussed at length by the participating libraries. In the short term, it is hoped that adequate control over the OJAC service can be maintained at the distribution end (when the patron is handed the document). Some libraries intend to impose a charge for OJAC requests. Each library will be able to specify a message to appear on the document request screen for their users. Ultimately, it is proposed that validation and monitoring facilities be built into OJAC requesting services.

## 8.0 Short-Term Recommendations

The participants in the OJAC project made the following short-term recommendations:

1. A permanent OJAC service should be offered to British Columbia post-secondary institutions, beginning in Fall 1993. It should be up to each institution to decide whether to participate or not. Participants should both request and supply documents.

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It was unanimously agreed that the OJAC project should continue. Participants were concerned that the OJAC service should be integrated with the existing British Columbia post-secondary interlibrary loan network, NET.

2. The standard charge for the OJAC service should be set at \$6 (Canadian), but that it should be up to individual institutions to decide on what basis they might wish to charge or restrict access to the OJAC service for their own patrons.
3. Serials holding information must be maintained accurately. Arrangements should be made to allow institutional holdings to be updated manually.
4. Holdings for all OJAC participants should be added to the OJAC databases. Those libraries from which OJAC requests may be made should be flagged. Institutions which are not part of the OJAC service should see neither the message to request a document nor this flag.
5. Each OJAC institution should be allowed to specify institution-specific text to display on the OJAC order screen.
6. The ELN should urge the Ministry of Advanced Education Training and Technology to provide adequate BCnet support for ELN institutions in order to ensure adequate response time on terminals in the ELN libraries and, ultimately, to enable the delivery of electronic documents.

#### 9.0 Medium- to Long-Term Recommendations

In addition to the OJAC end-user document delivery system, British Columbia post-secondary interlibrary loan departments use a variety of systems for their interlibrary loan activity. The University of British Columbia has a system called UBCLINC that provides integrated searching and requesting in the OPAC for British Columbia post-secondary ILL staff. A number of institutions use AVISO or Interlend, which are PC-based interlibrary loan management systems, as well as UTLAS' and OCLC's ILL modules. The BUCAT software is used at eight of the colleges.

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These circumstances strongly argued that these disparate systems needed transparent integration, and resulted in the following medium- to long-term recommendations:

1. The ELN should seek funding to provide integrated access, searching, document requesting, and system management functionality for all ELN library databases and OJAC services.
2. Efforts should be made to expand the material available for document delivery through OJAC by including other Simon Fraser University databases, databases mounted by ELN libraries (e.g., the University of British Columbia), and services such as CARL.
3. ELN institutions should be encouraged to obtain support for Z39.50 as soon as possible so that patrons can use

familiar and consistent search commands, and they should require that any systems they purchase either support or intend to support Z39.50.

4. ELN OJAC systems should provide item-level holdings validation; mechanisms for validating users who are requesting documents and applying institutionally determined limits on the number of individual user requests; and mechanisms for an institution-specific hierarchy of choices for document requests, rather than relying on the user to choose where the document should come from.

## 10.0 Conclusion

The pilot project provided the opportunity to work out system problems and service issues as well as to gather management information about user behaviour and costs. This information was needed before an OJAC service with sound and knowledgeable policy and procedures and realistic pricing could be established. It was anticipated that an OJAC service would simplify procedures and reduce costs and delivery time compared to a conventional ILL transaction, where a staff member must identify the location of material, request it, and possibly repeat the process if that copy is not available.

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The OJAC project offered its participants the opportunity to participate in an exciting initiative. Despite some problems, the project was successful both in the eyes of librarians and of users. Building on the work of the project, a permanent OJAC service commenced September 1993. Its establishment provides the opportunity for British Columbia post-secondary institutions to offer improved service to their users, while reducing library staff workloads.

## Notes

1. Paul Baldwin, Journal Contents Database and Document Delivery Pilot Implementation Study (Burnaby, Canada: n.p., 1991).
2. Lynn Copeland, British Columbia Electronic Library Network: Final Report (Burnaby, Canada: n.p., 1993).

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